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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,234	11/26/2003	Necraj Khurana	2705-313	9146

20575 7590 03/08/2007  
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PORTLAND, OR 97204

EXAMINER
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MANOSKEY, JOSEPH D

ART UNIT	PAPER NUMBER
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2113

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/723,234	<b>Applicant(s)</b> KHURANA ET AL.	
	<b>Examiner</b> Joseph D. Manoskey	<b>Art Unit</b> 2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12-18, 21, 22, 24 and 25 is/are rejected.
- 7) ☒ Claim(s) 10, 11, 19, 20 and 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-9, 12-18, 21, 22, 24, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Daruwalla et al., U.S. Patent 7,058,007, hereinafter referred to as "Daruwalla"

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

3. Referring to claim 1, Daruwalla teaches a shared-access computer network with redundancy techniques which includes protection cable modem terminal system

Art Unit: 2113

(CMTS) that can take over for a working CMTS, this interpreted as in a system that includes a first unit and a backup unit, said first unit and said backup unit being adapted to communicate via a packet network (See Fig. 2a and Col. 2, lines 50-57). Daruwalla also teaches the CMTS having an operating system, cutover logic and, is connected to the network, this is interpreted as said first unit including an operating system, an exception handler and a network interface unit, said exception handler being activated when said operating system suffers a fault (See Fig. 8a and Col. 15, lines 8-28 and Col. 16, lines 65-67).

Daruwalla teaches the cutover logic residing in hardware. Daruwalla also teaches at the time of the failure cutover being required the affected modem registering with the protection CMTS. After cutover has occurred the protection CMTS taking over for the working CMTS, this is interpreted as the improvement which includes a notification program that operates when the exception handler is activated, said notification program being adapted to send a control packet to the backup via said network interface unit without utilizing said operating system software, whereby said backup unit can be notified immediately when said first unit suffers a software fault (See Fig. 2a, Fig. 8a, and Col. 2, line 50 to Col. 3 line 5, Col. 8, lines 19-22, and Col. 16, lines 65-67).

4. Referring to claim 2, Daruwalla discloses a shared-access computer network with a plurality of CMTSs and a protection CMTS, where the CMTSs are routing CMTSs. Daruwalla teaches implementing on specifically constructed machine, thus an ASIC,

Art Unit: 2113

being a network interface card. The CMTS include cutover logic which resides in hardware that allows the protection CMTS to take over for the working CMTS.

Daruwalla also teaches at the time of the failure cutover being required the affected modem registering with the protection CMTS, this is interpreted as a network router which includes a plurality of CMTS cards interconnected by a signal bus, one of said cards being a backup card, each of said cards including an ASIC which interfaces said card to said signal bus, a notification program activated when said exception handler is activated, said notification program being adapted to send a signal to said backup unit via said ASIC, to activate said backup unit (See Fig. 2a and 8a, Col. 2, lines 50-57, Col. 8, lines 19-22, Col. 15, lines 8-28, and Col. 16, lines 65-67).

5. Referring to claim 3, Daruwalla discloses a shared-access computer network with a plurality of CMTSs and a protection CMTS, where the CMTSs are routing CMTSs.

Daruwalla teaches implementing on specifically constructed machine, thus an ASIC, being a network interface card. The CMTS include cutover logic which resides in hardware that allows the protection CMTS to take over for the working CMTS.

Daruwalla also teaches at the time of the failure cutover being required the affected modem registering with the protection CMTS, this is interpreted as a network router which includes a plurality of CMTS cards interconnected by a data bus, one of said cards being a backup card, each of said cards including an ASIC which interfaces said card to said data bus, a notification program activated when said exception handler is activated, said notification program being adapted to send a signal to said backup unit

Art Unit: 2113

via said ASIC, to activate said backup unit (See Fig. 2a and 8a, Col. 2, lines 50-57, Col. 8, lines 19-22, Col. 15, lines 8-28, and Col. 16, lines 65-67).

6. Referring to claim 4, Daruwalla teaches the CMTSs being routing CMTSs, this is interpreted as wherein said first unit and said backup unit are network routers (See Col. 15, lines 25-28).

7. Referring to claim 5, Daruwalla teaches the use of plural CMTSs including a protection CMTS, this is interpreted as wherein said first unit and said backup unit are Cable Modem Termination Systems (CMTS) (See Fig. 2a and Col. 2, lines 50-57).

8. Referring to claim 6 and 7, Daruwalla discloses the CMTS as part of a shared-access computer network, this is interpreted as wherein said first unit and said backup unit are connected to a local area network (See Col. 2, lines 50-57).

9. Referring to claim 8, Daruwalla teaches the CMTSs being routing CMTSs, this is interpreted as wherein said first unit and said backup unit are network routers connected to a wide area network (See Fig. 1 and Col. 15, lines 25-28).

10. Referring to claim 9, Daruwalla discloses CMTS being implemented in hardware, this is interpreted as the wherein said network interface unit operates independent from said operating system (See Col. 15, lines 8-9).

11. Referring to claim 12, Daruwalla teaches a shared-access computer network with redundancy techniques which includes protection cable modem terminal system (CMTS) that can take over for a working CMTS, this interpreted as a system that includes a first unit and a backup unit, means for communicating between said first unit and said backup unit via a packet network means (See Fig. 2a and Col. 2, lines 50-57). Daruwalla also teaches the CMTS having a operating system, cutover logic and, is connected to the network, this is interpreted operating system means in said first unit, exception handler means in said first unit, said exception handler being activated when said operating system suffers a software fault, and network interface means in said first unit (See Fig. 8a and Col. 15, lines 8-28 and Col. 16, lines 65-67).

Daruwalla teaches the cutover logic residing in hardware and after cutover has occurred the protection CMTS taking over for the working CMTS. Daruwalla also teaches at the time of the failure cutover being required and the affected modem registering with the protection CMTS, which are connected via a network, thus sending a control packet. Daruwalla teaches implementing as a network interface card. This is interpreted as means operable when said exception handler is activated to send a control packet to said backup unit via said network interface means without utilizing said operating system means, and whereby said backup unit can be notified immediately when said first unit suffers a software fault (See Fig. 8a, and Col. 2, line 50 to Col. 3 line 5, Col. 8, lines 19-22, Col. 15, lines 8-16, and Col. 16, lines 65-67).

Art Unit: 2113

12. Referring to claim 13, Daruwalla teaches the CMTSs being routing CMTSs, this is interpreted as wherein said first unit and said backup unit are network routing means(See Col. 15, lines 25-28).

13. Referring to claim 14, Daruwalla teaches the use of plural CMTSs including a protection CMTS, this is interpreted as wherein said first unit and said backup unit are internet network routing means (See Fig. 2a and Col. 2, lines 50-57).

14. Referring to claim 15 and 16, Daruwalla discloses the CMTS as part of a shared-access computer network, this is interpreted as wherein said first unit and said backup unit are connected to a local area network means (See Col. 2, lines 50-57).

15. Referring to claim 17, Daruwalla teaches the CMTSs being routing CMTSs, this is interpreted as wherein said first unit and said backup unit are network routers connected to a wide area network (See Fig. 1 and Col. 15, lines 25-28).

16. Referring to claim 18, Daruwalla discloses CMTS being implemented in hardware, this is interpreted as the wherein said network interface unit operates independent from said operating system means (See Col. 15, lines 8-9).

17. Referring to claim 21, Daruwalla teaches a shared-access computer network with redundancy techniques which includes protection cable modem terminal system



Art Unit: 2113

(CMTS) that can take over for a working CMTS, this interpreted as a method of notifying a backup unit that first unit has suffered a fault (See Fig. 2a and Col. 2, lines 50-57).

Daruwalla also teaches the CMTS having a operating system, cutover logic and, is connected to the network, this is interpreted as said first unit including an operating system, an exception handler an interface unit that can communicate with said backup unit (See Fig. 8a and Col. 15, lines 8-28 and Col. 16, lines 65-67).

Daruwalla teaches the cutover logic residing in hardware and after cutover has occurred the protection CMTS taking over for the working CMTS. Daruwalla also teaches at the time of the failure cutover being required and the affected modem registering with the protection CMTS, which are connected via a network, thus sending a notification. This is interpreted as activating said exception handler when said operating system suffers a software fault, sending a notification from said exception handler to said interface unit when said exception handler is activated, activating said interface unit to send a notification to said backup unit without utilizing said operating system, whereby said backup unit can be notified immediately when said first unit suffers a software fault (See Fig. 8a, and Col. 2, line 50 to Col. 3 line 5, Col. 8, lines 19-22 and Col. 16, lines 65-67).

18. Referring to claim 22, Daruwalla discloses a shared-access computer network with a plurality of CMTSs and a protection CMTS, where the CMTSs are routing CMTSs. The CMTS include cutover logic which resides in hardware that allows the protection CMTS to take over for the working CMTS, this is interpreted as wherein said

Art Unit: 2113

exception handler activates said interface unit to send a control packet from said first unit to said backup unit (See Fig. 2a and 8a, Col. 2, lines 50-57, Col. 15, lines 8-28, and Col. 16, lines 65-67).

19. Referring to claim 24, Daruwalla teaches a shared-access computer network with redundancy techniques which includes protection cable modem terminal system (CMTS) that can take over for a working CMTS, this interpreted as a computer readable medium containing instructions which when, executed in a system, cause said to perform a method of notifying a backup unit that first unit has suffered a fault (See Fig. 2a and Col. 2, lines 50-57). Daruwalla also teaches the CMTS having an operating system, cutover logic and, is connected to the network, this is interpreted as said first unit including an operating system, an exception handler an interface unit that can communicate with said backup unit (See Fig. 8a and Col. 15, lines 8-28 and Col. 16, lines 65-67).

Daruwalla teaches the cutover logic residing in hardware and after cutover has occurred the protection CMTS taking over for the working CMTS. Daruwalla also teaches at the time of the failure cutover being required and the affected modem registering with the protection CMTS, which are connected via a network, thus sending a notification. This is interpreted as activating said exception handler when said operating system suffers a software fault, sending a notification from said exception handler to said interface unit when said exception handler is activated, activating said interface unit to send a notification to said backup unit without utilizing said operating

Art Unit: 2113

system, whereby said backup unit can be notified immediately when said first unit suffers a software fault (See Fig. 8a, and Col. 2, line 50 to Col. 3 line 5, Col. 8, lines 19-22 and Col. 16, lines 65-67).

20. Referring to claim 25, Daruwalla discloses a shared-access computer network with a plurality of CMTSs and a protection CMTS, where the CMTSs are routing CMTSs. The CMTS include cutover logic which resides in hardware that allows the protection CMTS to take over for the working CMTS, this is interpreted as wherein said exception handler activates said interface unit to send a control packet from said first unit to said backup unit (See Fig. 2a and 8a, Col. 2, lines 50-57, Col. 15, lines 8-28, and Col. 16, lines 65-67).

#### ***Allowable Subject Matter***

21. Claims 10, 11, 19, 20, and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

22. Applicant's arguments, see page 6 of amendment, filed 12 December 2006, with respect to claims 2, 3, and 16 have been fully considered and are persuasive. The objection of claims 2, 3, and 16 has been withdrawn.

Art Unit: 2113

23. Applicant's arguments, see page 6 of amendment, filed 12 December 2006, with respect to claims 2 and 3 have been fully considered and are persuasive. The 35 U.S.C. 112 rejection of claims 2 and 3 has been withdrawn.

24. Applicant's arguments, see pages 6-11 of amendment, filed 12 December 2006, with respect to the 35 U.S.C. 102(e) rejection claims 1-9, 12-18, 21, 22, 24, and 25 have been fully considered but they are not persuasive.

25. Referring to claim 1, the Applicant argues that the prior art does not teach "sending a control packet to the backup unit via said network interface without utilizing said operating system software". The Examiner respectfully disagrees. Daruwalla teaches the cutover logic residing in hardware, thus being separate from the operating system. Daruwalla also teaches at the time of the failure cutover being required and the affected modem registering with the protection CMTS, which are connected via a network, thus sending a control packet. After cutover has occurred the protection CMTS taking over for the working CMTS (See Fig. 2a, Fig. 8a, and Col. 2, line 50 to Col. 3 line 5, Col. 8, lines 19-22, and Col. 16, lines 65-67). These clarifications have been added to the above rejection.

26. Referring to claims 2 and 3, the Applicant argues that the prior art does not teach "a CMTS card that includes an ASIC that interfaces the CMTS card to the signal bus" and "a notification program that is adapted to send a signal to said backup unit via said

Art Unit: 2113

ASIC". The Examiner respectfully disagrees. Referring to claim 3, Daruwalla discloses a shared-access computer network with a plurality of CMTSs and a protection CMTS, where the CMTSs are routing CMTSs. Daruwalla teaches implementing on specifically constructed machine, thus an ASIC, and being a network interface card. The CMTS include cutover logic which resides in hardware that allows the protection CMTS to take over for the working CMTS. Daruwalla also teaches at the time of the failure cutover being required the affected modem registering with the protection CMTS (See Fig. 2a and 8a, Col. 2, lines 50-57, Col. 8, lines 19-22, Col. 15, lines 8-28, and Col. 16, lines 65-67). These clarifications have been added to the above rejection.

27. Referring to claim 12, the Applicant argues that the prior art does not teach "sending a control packet to the backup unit via network interface". The Examiner respectfully disagrees. Daruwalla teaches the cutover logic residing in hardware and after cutover has occurred the protection CMTS taking over for the working CMTS. Daruwalla also teaches at the time of the failure cutover being required and the affected modem registering with the protection CMTS, which are connected via a network, thus sending a control packet. Daruwalla teaches implementing as a network interface card. This is interpreted as means operable when said exception handler is activated to send a control packet to said backup unit via said network interface means without utilizing said operating system means, and whereby said backup unit can be notified immediately when said first unit suffers a software fault (See Fig. 8a, and Col. 2, line 50

Art Unit: 2113

to Col. 3 line 5, Col. 8, lines 19-22, Col. 15, lines 8-16, and Col. 16, lines 65-67). These clarifications have been added to the above rejection.

28. Referring to claim 21, the Applicant argues that the prior art does not teach "sending a notification from said exception handler to said interface unit when said exception handler is activated, activating said interface unit to send a notification to said backup unit without utilizing said operating system software". The Examiner respectfully disagrees. Daruwalla teaches the cutover logic residing in hardware and after cutover has occurred the protection CMTS taking over for the working CMTS. Daruwalla also teaches at the time of the failure cutover being required and the affected modem registering with the protection CMTS, which are connected via a network, thus sending a notification. This is interpreted as activating said exception handler when said operating system suffers a software fault, sending a notification from said exception handler to said interface unit when said exception handler is activated, activating said interface unit to send a notification to said backup unit without utilizing said operating system, whereby said backup unit can be notified immediately when said first unit suffers a software fault (See Fig. 8a, and Col. 2, line 50 to Col. 3 line 5, Col. 8, lines 19-22 and Col. 16, lines 65-67). These clarifications have been added to the above rejection.

### ***Conclusion***

29. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

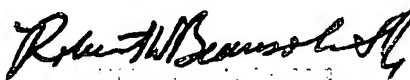
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Manoskey whose telephone number is (571) 272-3648. The examiner can normally be reached on Mon.-Fri. (7:30am to 4pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2113

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JDM  
March 3, 2007

  
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SUPERVISORY PATENT EXAMINER  
TECHNICAL STAFF, 2113